ESMO Minimum Clinical Recommendations for diagnosis, treatment and follow-up of non-small-cell lung cancer (NSCLC)

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DOI: https://doi.org/10.1093/annonc/mdi821

Annals of Oncology 16 (Supplement 1): i28–i29, 2005
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Incidence

- The crude incidence of lung cancer in the European Union is 52.5/100 000 per year, the mortality 48.7/100 000 per year. Among men the rates are 82.5 and 77.0/100 000 per year, among women 23.9 and 22.3/100 000 per year, respectively. NSCLC accounts for 80% of all cases. About 90% of lung cancer mortality among men (and 80% among women) is attributable to smoking.

Diagnosis

- Pathological diagnosis should be made according to the WHO classification from a bronchoscopic, tru-cut or surgical biopsy or fine needle aspiration.

Staging and risk assessment

- Complete history and physical examination, chest X-ray and CT scan of the chest and upper abdomen if local therapy is being considered. Neurologic history and examination (with a CT scan and/or MRI of the brain if results are abnormal).
- Mediastinal lymph node biopsy for operable NSCLC if CT scan shows nodes >1 cm in shortest transverse axis.
- PET scan if warranted in resectable patients.
- Bone scintigraphy, in the presence of bone pain, elevated serum calcium level, or elevated alkaline phosphatase level.
- Biopsy (or MRI or PET scan) to rule out metastatic disease in otherwise potentially resectable patients with an isolated adrenal mass or liver lesion.
- Patients with NSCLC shall be staged according to the TNM-2002 system and be grouped into the risk categories shown in Table 1.

Treatment of stage I–II disease

- Surgery remains the standard treatment of early stage NSCLC. Adjuvant chemotherapy should be considered *[II, A]*. Postoperative radiotherapy is not recommended *[I, A]*.
- Curative radiotherapy as a single modality can achieve a 5-year survival rate of up to 40% in selected patients with clinical stage I disease, and should be considered in cases of medically inoperable stage I and II disease.

Treatment of stage III disease

- Preoperative chemotherapy is standard for resectable stage IIIA. In randomized trials the survival of stage IIIA patients was significantly better with induction chemotherapy plus surgical resection than with resection alone *[I, A]*.
- Platinum-based chemotherapy and thoracic radiotherapy is the standard treatment for locally advanced, unresectable Stage IIIB NSCLC or medically inoperable stage IIIA NSCLC *[I, A]*.

Treatment of stage IV disease

- Platinum-based chemotherapy combined with vinorelbine, gemcitabine or taxanes prolongs survival, improves quality of life, and controls symptoms in patients with good performance status *[I, A]*.

Second-line chemotherapy

- Second-line chemotherapy (docetaxel, pemetrexate) improves disease-related symptoms and improves survival in selected patients *[II, B]*.

Response evaluation

- Response evaluation is mandatory after 2 or 3 cycles of chemotherapy by repetition of the initial radiographic tests.

Follow-up

- The optimal approach to post-treatment management of patients with thoracic malignancies, including the role of radiologic evaluation, is controversial. For patients treated with curative intent, a history and physical examination should be performed every 3 months during the first 2 years, and every 6 months thereafter.

Table 1.

Occult carcinoma	Tx	N0	M0
Stage 0	Tis	N0	M0
Stage IA	T1	N0	M0
Stage IB	T2	N0	M0
Stage IIA	T1	N1	M0
Stage IIB	T2	N1	M0
	T3	N0	M0
Stage IIIA	T1, T2	N2	M0
	T3	N1, N2	M0
Stage IIIB	Any T	N3	M0
	T4	Any N	M0
Stage IV	Any T	Any N	M1

Note

Levels of Evidence *[I–V]* and Grades of Recommendation *[A–D]* as used by the American Society of Clinical Oncology are given in square brackets. Statements without grading were considered justified standard clinical practice by the expert authors and the ESMO faculty.

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Approved by the ESMO Guidelines Task Force: February 2002, last update: December 2004.

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